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Marginal Utility and Value.

BY S. M. MACVANE.

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MARGINAL UTILITY AND VALUE.

In the *Quarterly Journal of Economics* for October, 1890, under the caption "Boehm-Bawerk on Value and Wages," I gave some reasons for doubting the claim of marginal utility to be regarded as the regulator of exchange value. Professor von Wieser of the University of Prague has done me the honor of replying to my objections. In an article published in the *Annals of the American Academy of Political and Social Science* for March, 1892, he explains and defends the position of the Austrian economists, taking occasion at the same time to expose the defects which, in his opinion, are inherent in the classical theory of value. The Austrian theory has attracted so much attention, and has at the same time received so little critical examination in English, that I take the liberty of asking space for a brief discussion of it.

The points at issue between the new theory of value and the old are reducible, I think, to two fundamental questions: 1. What is the true nature of cost of production? 2. What is the true connection between cost of production and value? At least, it seems clear that the fate of the Austrian theory of value depends on the ability of its advocates to answer these questions in a satisfactory manner. I propose in this paper to inquire how far their treatment of these matters up to the present date can be accepted as satisfactory. In doing so, I shall confine myself, in the main, to Dr. von Wieser's article mentioned above, as the latest authoritative statement, making use, however, of other publications by members of the school, whenever additional light can be obtained thereby.

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I.

The most striking feature of the Austrian treatment of cost is that it makes value the measure of cost. The cost of each commodity consists in the value of the means of production necessarily used up in producing it. Even human labor is regarded as an element of cost only in so far as it has value. That is to say, the primary element of cost is not the labor itself, but its value. Since this is a point of great importance, it is only fair that we should have it in the words of the authors themselves. Dr. von Wieser explains the nature of cost as follows: —

> Every capitalist must in his own interest adapt his business to the general conditions of the market, if he wants it to maintain itself profitably. So far as he resorts to means of production that have other applications as well, he finds that they have a given value. He must pay for them, and the value of the goods he produces must replace this expenditure. In this sense, he has to adapt the value of the commodities to the value of the means of production. Thus originates the conception of cost. Cost consists in means of production having manifold applications, like iron, coal, and common labor, which, even when they are employed in the production of a single commodity, are still estimated according to the value they have in all their applications. The hundreds and thousands of different kinds of materials and tools prepared for production are counted, weighed, and measured according to the utility which they are to create, and in view of their importance most jealously guarded by their possessors. In the same way, the different kinds of labor are assorted according to the utility expected from them, and arranged according to a classification which differs essentially from that which would result if the effort involved should be taken into consideration. The unlimited possession of useful productive materials and forces forms the basis of the economic confidence of modern society. Since each productive process diminishes this possession, it *costs*,— and it costs exactly as much as the value which the material and labor required would have produced if rationally applied. (p. 41.)

Again: —

> Our principle is that value is derived from utility; and, quite in harmony with this principle, we assert that cost is, after all, accord-

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ing to the general law of value, that of marginal utility, measured by utility alone. (p. 44.)

Obviously, there cannot be two independent laws of value. Two independent regulators of value could not always coincide in fixing one and the same value. If marginal utility fixes exchange value, then clearly cost of production does not also fix it. In order to avoid the obvious conflict, the Austrians have undertaken to show that marginal utility fixes cost as well as value. There was, indeed, no other way out of the difficulty. If it can be shown that they fail in this undertaking because they ignore true cost altogether, no further proof is really needed to show that the control over value claimed for marginal utility has not been sustained.

The treatment of cost by the Austrian economists has, I think, two serious defects. In the first place, they set out with the value of such things as iron, coal, wood, and land as factors in the cost of production of the commodities in the making of which these articles come into play. They begin the computation of cost by assuming the value of materials as an ultimate element in cost, as if no inquiry into the history or antecedent conditions of these materials could be in order. Dr. von Wieser writes precisely as if the man in the moon supplied men with iron, coal, and other materials, in quantities fixed by his own sovereign fiat, at values set by the marginal utility of his wares to us. In other words, the Austrian computation of cost of production begins, not at the beginning of the process of production, but at a selected point well along in the process. The cost of production of iron palings, for example, is contemplated as beginning at the point where pig iron is appropriated to the making of palings. Apparently because iron may be brought to the stage of pig without being committed to this particular use, they do not regard the mining and smelting of iron ore as any part of the process of producing iron palings. This pro-

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cedure may have advantages for their theory, as well as a certain appearance of reasonableness. Obviously, if cost is to consist in the "value of the means of production," the reckoning of cost cannot begin until value has appeared. So iron in its original ore-bed is not a means for the production of palings, since in that form it has no value. When it has been dug out and smelted into pigs, it has a value, and becomes a "material" or a "means" for the production of palings or any other of the ten thousand things made of iron.

But what, on this method, shall be said of the labor of mining and smelting? Is that no part of the labor of producing iron wares? In the economic sense, which is but another word for the true sense, I see no possible ground for denying this character to such labor. The fact that some materials are adapted to the production of many different sorts of commodities does not in the slightest degree affect the nature of the process of production. That remains for each commodity of the group precisely what it would have been if the other members of the group did not exist. If iron palings were the only commodity made of iron, I suppose the Austrian economists would admit that the labor of mining and smelting iron ore is a part of the labor of producing iron palings. It is, then, incumbent on them to give a clear and conclusive reason for holding that the use of iron for making other products makes it necessary for us to treat the cost in a different way. The difficulty of foretelling, before differentiation begins, what particular use any given portion of iron ore may be devoted to, does not alter the fact that every portion of it does go to some particular use. There would be no greater difficulty in separating costs at this stage than at any and every other stage of producing things under our highly complicated system of combination of labor. Whether we regard cost as consisting in necessary exertion or in the value of the means of production, there are difficulties in

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the way of tracing accurately the cost of any given commodity. The Austrian view may mask these difficulties somewhat, but I think it does not really evade or diminish them in the least. At all events, the fact is clear that the labor of digging out the ores of iron and the other metals, of getting wood from the forest, of raising cotton, linen, wool, and all similar "means of production," is productive labor. If it be a part of the necessary labor of producing the goods in the making of which iron, tin, cotton, wool, etc., come into play, what good reason can there be for refusing to recognize it in our definition of cost, on a footing of equality with the later labor? If, on the other hand, we hold that it has no place in the cost of these goods, what shall we do with it? How shall we classify it, and what shall we assign as its economic motive? For my own part, I can see no valid reason for treating it differently, in relation to cost, from the labor of the later stages in the production of each commodity.

The Austrian economists seem to have held that no reason is necessary. The only suggestion I have met with in their writings, that seems to bear on the point, is to the effect that we cannot in any case get back to the very beginning of the production of any article. Even in the making of our tools for use in procuring the materials of any given commodity, we have the use of old tools. This suggestion opens up a large question, as to the proper way of treating capital in relation to cost of production. Dr. von Wieser holds that capital must be regarded as a separate factor in cost, distinct from labor and waiting, or labor and abstinence. "Everywhere the new capital is the descendant of previously existing capital. By no form of computation can the factor 'capital' be eliminated from the cost of capital." He is so impressed with the weight of this consideration that he is unable to avoid a suspicion that English and American economists, finding themselves unable to explain the relation of capital to

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cost, have entered into a conspiracy to say nothing about it. I must take the liberty of doubting whether he has quite understood the position of those who reduce cost of production to labor and waiting (or abstinence). He argues as if adherents of the classical theory reduced cost to labor alone. We are certainly as free from that error as the Austrian economists. The only real question between us is how to treat the other element in cost. The Austrians propose to call it the value of the capital consumed in producing each commodity. The classical economists urge, in objection, that capital is itself a product of labor; that, therefore, if we name the necessary labor of production as an element of cost, we should be guilty of double counting if we name the necessary consumption of capital as a further element. To this objection Dr. von Wieser replies that "nowhere in our modern economy is capital produced by labor alone." Since, in the making of our new capital, we have the use of old capital, he thinks the consumption of capital must be regarded as an element in cost distinct from, and in addition to, the necessary labor and waiting. But I think he overrates the importance of this consideration in its bearing on the analysis of cost.

In the first place, the fact that we have, in every productive undertaking, the use of previously existing capital, seems to be a poor reason for Dr. von Wieser's own mode of treating cost. The fact that we have the use of old tools in the making of new ones does not obliterate the fact that both the new and the old are products of human labor. Granted that we have the use of old mines, forges, and machine-shops in making the necessary outfit for opening and operating new mines, I fail to see in that fact the least reason for ignoring altogether, in the cost of producing iron wares, the labor of digging out the ores and smelting them into pig iron. Why begin with the value of pig iron, as if that were an ultimate fact, when we

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all know that this is not the natural form of the material, and that, in its untouched natural condition, iron has no value? Even if it were true that our view of cost can never embrace the very beginnings of production, that would be no reason for declining to get as near to the beginning as we can.

Secondly, no one, so far as I am aware, has ever maintained that all the labor and waiting (or labor and abstinence) entering into the cost of production of the goods of to-day has been borne by the men of to-day. The natural cost of production of things is highly complex in point of time as well as in other ways; and it would be absurd to frame a definition of cost that should regard production as a momentary act, and cost as contemporaneous with the enjoyable product. The truth appears to be that every great industrial undertaking — in fact, almost every provision of what is called "fixed capital" — involves long waiting for the full natural return to the labor expended. That our fathers and grandfathers bore part of the burden of producing commodities we are now enjoying is a fact too obvious to be doubted. But, so far from seeing in this fact a refutation of the theory that the whole natural cost of commodities is ultimately resolvable into labor and waiting, I see in it only an illustration of that theory. Fortunately for human progress, every generation of men may, by inventive ingenuity and by laboring for distant returns, reduce indefinitely the cost of commodities to the succeeding generation. But this surely does not introduce any new element into cost, different from, and in addition to, the necessary labor and waiting. It means only that the persons who endure the labor and waiting are not always those who enjoy the fruits, especially the full fruits.

Since, however, Dr. von Wieser seems to think the point of great importance, I may be allowed to suggest that, in my judgment, he mistakes the direction in which its importance is to be found. The influence of the exist-

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ing capital on the present productiveness of industry, and therefore on cost, does not depend in the least degree on the history of capital. The thing that has been affected by the history of capital is the present ownership of it. But the question of ownership has nothing to do with the agency of capital in reducing the natural cost of producing things. The cost of the products would be the same if the capital belonged to the whole body of producers instead of belonging to a comparatively small number of them. But the rights of the individual producer in respect of the current product of industry would undoubtedly be different. So far, then, as the ownership of our present industrial outfit is an historical development, the history of capital has a close bearing on what we call, for want of a better term, Distribution. But the historical cost of capital, the painful labors and waitings by which our remote ancestors made the beginnings of capital, have long since ceased to be any part of the operative cost of commodities. So far as our doctrine of present cost is concerned, we can only take the world as we find it, with all its fulness of devices for making labor productive through the exercise of intelligent waiting power. We do so, of course, bearing in mind that some part of the cost of to-day's good things was borne years ago, and that some part of the costs the men of to-day are submitting to goes towards the production of good things that will not see the light for years to come. Here, as in other things, political economy must take the facts as it finds them; must not set up a definition of cost of production that ignores the complicated time-relation between true cost and ultimate product; must not pretend that cost of production is a simpler thing than production itself, or is to be found elsewhere than in the process of production itself.

Dr. von Wieser's conception of capital and of its relations to ultimate product may be different from mine. If capital be the industrial outfit other than the land and

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natural forces, it follows that most of the labor of the community is constantly engaged in the production of capital. Not merely machinery and buildings, but also all materials and unfinished products on which labor has been spent or is being spent, even the finished commodities in the channels of trade and in the hands of the dealers, must be regarded as capital. They are all products of labor applied to the uses of production. They are all essential to the working of the industrial system. Exchange being a necessary stage of production by division of labor, there can be no sound reason for refusing to include in our conception of capital the necessary outfit for carrying on exchange. If these things be true, it is needless to point out how futile must be the attempt to treat capital as a separate element in cost, distinct from the labor of production. Capital is simply the tangible result of labor directed towards obtaining commodities in ways that do not at once yield the desired return. The interim results of productive labor, up to the point of completed exchange, would seem to be capital. How, then, can we speak of capital as an element in cost distinct from and in addition to the requisite labor of production?

If it be allowable to throw out of account some part of the necessary labor, substituting for it, as an ultimate element of cost, the value of the materials or the machinery it has prepared, there is no obvious or conclusive reason for stopping short in the substitution at the point chosen by the Austrians. If it be admissible to start with the value of iron in defining the cost of production of iron palings, it must be also allowable to start with the value of flour in defining the cost of producing bread, and with the value of cloth in defining the cost of coats. That procedure would certainly simplify very much the treatment of cost. But, unfortunately, it would give a very empty and unreal view of production. We might about as well set out with the value of palings, coats, and bread

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themselves as the one great and ultimate element in their own cost of production,— which, indeed, as I think we shall find, is substantially the very thing Dr. von Wieser asks us to do. Not, of course, in this bald and abrupt fashion, but in ways which, however complicated and roundabout, may be shown to lead in the end to this result.*

This brings us to the other, and, as I conceive, more radical defect of the Austrian treatment of economic cost. Their fundamental principle is that cost of production is measured by utility; that is to say, that the loss or destruction of utility in the production of each commodity constitutes the cost of producing it. In order to appreciate the full bearing of their doctrine, we must take their whole reasoning into account. It seems to be briefly this: The value of each commodity is determined by its marginal utility, or the utility of the marginal portion of it, the portion that would not find buyers if the price were a little higher. Mere means of production, such as iron and wool, having no direct utility of their own, have no value of their own. But they have a derived or attributed utility equal to that of their potential products; or, rather, to be accurate, equal to the utility of the marginal member

*If I were merely trying to convince American economists of the error of the Austrians, and not rather hoping to convince the Austrians themselves, there is another consideration that I should urge with entire confidence in its efficacy as an argument against substituting the value of materials for the labor of producing them. I refer to the fact that the value of pig iron, for example, is the medium whereby the miners and smelters of iron ore draw their rewards from the rest of the community. What is paid for pig iron goes to make the wages and profits of those who produce it. English and American economists have, I think, too lively a recollection of the perplexities and miseries growing out of the confusion of cost with the rewards of those who endure the cost, to be willing to fall back into that bog. But the Austrian economists are clearly in a different frame of mind. They seem not to have felt the difficulty, because their ideas of value are so different from ours. They have so many meanings for value, and can so readily take refuge in the depths of subjective value, that I should not expect this argument to make any impression on them. When they speak of the value of iron as an item in the cost of palings, they seem to have in mind primarily not the amount paid for it, but the value of the other things the iron might be turned into. Their critics must meet them on their own ground.

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or portion of their potential products. They have, therefore, a value attributed to them equal to the value of the commodities they can be used to produce. Now, when any means of production, thus valuable, are applied to the production of any particular commodity, there is a loss or destruction of value: the same means can no longer be applied to any of the other uses for which they had a fitness and a value. "Production, therefore, does not merely create value: it also destroys value." * This destruction of value in the production of each commodity constitutes the cost of production of the commodity.

Wool, for example, is a means for the production of coats, blankets, stockings, and a variety of other commodities. It has, in conjunction with the other requisite means of production, a derived utility and value equal to the utility and value of the marginal member or portion of the whole group of products to which it is applied. When wool is used for making a coat, it can no longer be applied to the making of stockings or blankets or any other woollen goods: its value for those purposes is gone, and this loss of value is an item in the cost of production of the coat.

But how, on these terms, shall we express the cost of production of the whole group of commodities for which wool is a means of production? We cannot do so by reference to the value of wool for any other purpose, for it has no other use. We can only say that wool has a value for the making of these goods, that this value is derived by anticipation from the goods themselves, and yet is at the same time an item in the cost of producing them. This must strike every critical student of the Austrian theory as a very strange conception of cost. Its strangeness becomes even more obvious when we state it in the other form so often used by its authors. In the sentence already quoted from Dr. von Wieser we are told that

* Von Wieser, *Der natürliche Werth*, p. 167.

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"cost is measured by utility alone." That is to say, the means of production, though they have no direct utility of their own, have a derived utility equal to that of their potential products. In the act of production this utility is destroyed, and this destruction of utility constitutes and measures the cost of production of the resulting commodity. In other words, the fitness of wool for the making of coats, blankets, etc., gives it an indirect utility for us; but, when we proceed to develop this utility by actually converting wool into blankets, coats, etc., its very fitness for these purposes becomes an item of cost to us!

In justice to Dr. von Wieser it must be said that he avoids putting his doctrine into just this form. He evidently perceived the incongruity of maintaining that the utility of a material for the making of a given commodity could be transformed into cost the moment the material is applied to that particular use. He is careful to explain that any material (*Productivelement*) which has but a single use lacks the manifoldness of relations that is necessary to the conception of cost.* Though, in such a case, the utility and value of the product are carried back by attribution to the material, yet the value of the material does not hold the relation of cost to the product. This must surely have suggested some doubts whether utility can be in any case a true element of cost. Obviously, the value of wool holds precisely the same relation to the cost of woollen goods in general, as the value of any material having but one use holds to its single product.

The importance of manifold adaptation for the concep-

* *Der natürliche Werth*, p. 168. At this point Dr. von Wieser's view seems to differ somewhat from that held by the author of the "Positive Theory." The latter writer seems to hold that the value of the marginal product of each material fixes the value of the material, and that the value of the material so fixed holds the relation of cost to all its products, the marginal as well as the rest. It is evident in any case that Dr. von Boehm-Bawerk either finds no cost at all for the marginal product or finds it in the value of the product itself. In other words, he seems to have left true cost out of account altogether.

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tion of cost appears to be that when, for example, wool is used for the production of coats, we can think of its value for making blankets, carpets, etc., and can see that, when we use it in producing coats, we give up thereby the power of using it for any other of its possible applications. Apparently, Dr. von Wieser does not contemplate the value of wool as a general cost of all woollen goods, but as a cost for any particular sort of such goods. Which suggests at once the question how he would have us conceive cost in the general way. If we inquire as to the cost of coats, we are referred for answer to the value of wool for making blankets, carpets, etc. If we inquire as to the cost of blankets, we are in turn to think of the value of wool for making coats carpets, etc. But what of the cost of coats, carpets, *and* blankets, and all other articles made from wool? If we must use the value of the rest to express the cost of each, how are we to express the cost of the whole group? Apparently, we can only say on this new theory of cost that the value of the whole group constitutes the cost of the whole group. If the value of the means of production be the attributed value of the potential commodities contained in them, and if the value of the means constitutes the cost of the commodities, it seems to follow that cost, as a general phenomenon, is indistinguishable from value. If utility be the measure of cost, then is cost, as a general conception, identical with utility. It is robbed of all independent significance. The unavoidable conclusion seems to be that the Austrian economists, in all their discussions of cost, have really not discussed cost at all, but the relations of value between different "orders" of materials and products.

In order to make the point as clear as possible, let me ask how the Austrian economists would have us conceive of the cost of the whole mass of commodities produced in the Austrian dominions during the past year? Or, in order to avoid all chance of perplexity by reason of international

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trade in materials, let us substitute the civilized world for the Austrian dominions. They will not, I suppose, controvert the proposition that there is such a thing as cost of production in this general sense. In fact, it would be an easy matter to show that it is only in a sense that easily lends itself to this universal conception, that cost of production has real significance for human welfare. Unless we have taken cost in a way that makes it possible for us to speak of the general lowering of cost through improvements in the arts of production, we may be sure that we have not taken it in its true sense at all.

If I understand correctly the Austrian theory of cost (which, of course, I do not assert), it seems to me to be incurably deficient on this side, and therefore on all sides. It seems to be at best a somewhat disguised and sublimated form of employer's cost, which, as may easily be seen, is strictly not cost of production at all, but cost of acquisition. As Dr. von Wieser states it, the cost of any given commodity is apparently not to be sought in the process of producing the commodity itself, but in the value of the other product or products that might have been produced by the same means of production. He seems to say that the existence of coats is the occasion of cost in the production of blankets, and the existence of blankets is the occasion of cost in the production of coats. If wool had no use for us except as material for coats, its value, however great, would not be an item in the cost of production of coats. He finds it necessary to look for the conception of cost elsewhere than in the production of the very thing whose cost you wish to ascertain. Cost, as he views it, insists on being something or belonging to something that might have been, but is not. When you try to grasp it, to attach it to a real commodity, and to measure it as a definite tangible quantity, it eludes you, and retires to the region of the might-have-beens. And when you raise the question of aggregate cost, when you ask whether

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commodities in general are or are not produced at a less cost now than they were a hundred years ago, this new view of cost offers, so far as I see, no sort of test for discovering the answer. The value of the means of production being at once the value and the cost of the products, we have no expression for that general reduction of the cost of all commodities that has been brought about by modern improvements in all lines of production. Since a general fall of values is impossible, a general lessening of cost becomes impossible also. Since the "value of labor" rises as its product increases, and since the value of labor is the great item in the Austrian cost-account, it seems to follow that increase in the general productiveness of labor does not, on this new theory, imply a reduction in the cost of producing commodities.

The classical conception of cost may not be without flaw, but it has at least the merit of addressing itself to those features of production that men must always and everywhere *feel* as cost. The cost that comes home to producers in the form of tired muscles and tedious waiting for the enjoyable fruits of labor, is not one that finds expression in terms of utility or value. It looks to the production of things that have utility and value: it is itself, however, the conscious sacrifice of present ease and enjoyment for the sake of obtaining "utilities fixed and embodied in material objects." And, after all has been made that can be made of the Austrian theory of cost, this other very real cost remains to be considered. It will refuse to be dropped out of the economic horizon so long as men regard labor and waiting as burdensome sacrifices. Finally, the observed tendency of value to conform to cost in this sense will have to be explained by economists; and those who maintain that value is fixed by marginal utility have still a good deal of explaining to do under this head.

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II.

The doctrine of marginal utility undoubtedly expresses some important economic truths to which the classical theory failed to give due prominence; and we all must acknowledge our indebtedness to the Austrian economists for drawing attention to these neglected areas of the economic field. Their mistake lies in claiming too much for the new principle. Marginal utility is the undoubted key to some things, but not to all things. The principal thing claimed for it is that it governs the exchanging ratios of commodities. That claim I believe to be quite inadmissible.

The first thing that strikes one in the Austrian treatment of value is the assumption it makes as to the motive that leads men to exchange commodities. Exchange of products is treated with little or no reference to division of labor. It is represented as a transaction by itself, entered into by the two parties with a view to profit. Each parts with a commodity of less utility to him, and gets in return a commodity of greater utility to him. The gain in utility on each side constitutes the gain or advantage of the exchange. The conditions of comparative utility under which exchange is possible by reason of offering this gain, and those under which no exchange can take place because there is no room for gain, are explained and illustrated at considerable length, but without reference to the great industrial fact that creates the necessity of exchange. The whole treatment strikes me as a remarkable example of economic near-sight. It ignores the question how and why men constantly find themselves in possession of things of lower utility for them than the things their neighbors have.* It proceeds exactly as if

*Of course, I do not mean that the Austrian economists do not speak of division of labor, or that they do not perceive its relation to economic exchange. All I mean is that they do not use these facts as a vital and fundamental part of their theory of exchange value.

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the good fairies, from time to time, filled one man's house with coats of all sorts, another man's with shoes of all sizes, a third man's with wheat, and so on. If commodities came to men in that way, this new view of exchange and the marginal utility theory of value would be thoroughly sufficient and satisfactory. But in the world as we know it the gain of exchange is not to be found in any comparison of the utilities given and received. The whole gain lies back of the exchange altogether, in the immeasurable increase of the productiveness of industry that arises from division of labor. The act of exchange is but the closing stage in the production of commodities by that method. The gain is in the method, and is purely mechanical in its nature: it is the gain of having more commodities for our labor, not of having commodities we prize more. The necessity of exchange, so far from being in itself a source of gain, is the one serious drawback to a plan that would otherwise be nothing but perfect gain.

It is natural that a theory of exchange which leaves production out of account should lead to a theory of value that leaves cost of production out of account. But it is very unlikely that any theory of exchange value can be satisfactory if it fail to connect exchange with its real basis in production. When the brick-maker offers bricks in exchange for the general assortment of commodities he needs, our theory of his action and motives must cover the whole case; must not forget how it comes to pass that a man needing a hundred other things, but not needing bricks at all, has nevertheless produced bricks, and nothing but bricks. If we leave out of sight, even for a moment, the one great fact that the man has chosen brick-making simply as a method of getting the general assortment of needful commodities, our theorizing is likely to run wide of the realities of the case. The final utility theory seems to me to be chargeable with this defect. It cuts off exchange from its true occasion and motive, and then invents for it

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a motive that is never in the minds of the exchangers. Bricks have simply no utility for the brick-maker: neither have shoes for the shoemaker, nor coats for the tailor. The elaborate balancing of utilities which the brick-maker is supposed to make, between his own bricks which he has never dreamed of using for himself, and the shoes, clothing, bread, meat, fuel, etc., that he has hoped to get by making bricks, has to my mind a very unreal character. I think it exists only in the imagination of the new theorists. This point was touched on in my notice of Boehm-Bawerk's work. Dr. von Wieser, in his defence of the Austrian theory, makes the following reply to this objection: —

> Professor Macvane is right in showing that, under the supremacy of the division of labor, the products very frequently, if not generally, have no value in use at all to the producer who wants to sell them. He thinks that our theory has not taken this fact into account. But in this he is quite mistaken. We have taken it into account, and it is in complete harmony with our theory of exchange.
>
> Although the commodity has no value in use to the seller, yet the price which he receives has an indirect value in use to him, since it enables him to buy goods of direct value in use. On this account he is influenced by those motives which, in our opinion, lead to the exchange. We presuppose a difference between the value in use of the article received and that of the article given in exchange. This difference does not disappear when the article given in exchange has a value in use equal to zero, but rather reaches its maximum in this case.*

This answer seems to me to be only a restatement of the objection. The objection is that, since the thing parted with has no utility for the giver, it is idle to assume a balancing of utilities in his mind between the thing he gives and the things he receives. It must be, by the nature of the case, a balancing between a utility of zero and a utility of ten or of ten thousand. In other words,

* *Annals of the American Academy of Political and Social Science*, March, 1892, p. 49.

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there can be no balancing at all. But we are now told that, although the commodity parted with "has no value in use to the seller, yet the price which he receives for it has an indirect value in use to him, since it enables him to buy goods of direct value in use." That is to say, though the commodity he sells has no utility to him, yet the goods he gets in exchange have utility for him. But this is the objection itself, and not an answer to it. For how can there be in the mind of each exchanger that nice balancing of utilities between the thing given and the thing received, which the Austrians assume and elaborate so carefully, when there really is nothing to balance? What justification is there for those numerical scales representing the comparative utilities of the products to be exchanged to the two exchangers? If, as Dr. von Wieser admits, the scale for one of the commodities on each side ought to have no number but zero, what is there left of the scales? What of the doctrine of *Tauschfähigkeit*, of the weak sellers and the strong sellers, of the pairs that can and the pairs that cannot exchange with profit? If profit be the motive in exchange, and if profit be reckoned on the Austrian principle, is not all that the brick-maker gets for his bricks, be it much or little, profit, and nothing but clear profit? Are not all sellers of maximum strength, on that test of strength, in so far as they are making the exchanges required by division of labor?

Dr. von Wieser reproaches the Ricardian theory with offering no explanation of exchange. "According to Ricardo, articles of equal cost have equal value. What inducement is there to exchange articles of equal value?" This singular question reveals, more clearly than whole pages of description could do it, the profound contrast between the Austrian way of looking at exchange and the way to which English and American economists are accustomed. Dr. von Wieser approaches value from the subjective or psychologic standpoint. In his treatment of it

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he expressly assumes that the supply of each commodity exists without production; and he explains that the natural value of commodities, according to his conception of it, is "value as it would be if an industrially highly developed community existed without exchange and price." * Commercial value — that is to say, value in the only sense with which English and American economists have concerned themselves — has but slight interest for him. His motive in considering it, even in bare outline, is merely to give the necessary background of reality to his discussion of the true natural value that is independent of commerce, and rests on marginal utility pure and simple.

Adherents of the classical school can have no sort of fault to find with attempts to sound the depths of subjective or psychologic or intrinsic value. We have left that field uncultivated, contenting ourselves with the entirely practical side of value. We have not troubled ourselves at all with the question how much anybody cares for the commodity he has produced, or for the various commodities he wishes to get in exchange for it. We have treated exchange as a simple necessity of the productive system,— a necessary part or stage of production by division of labor. Accepting exchange as a simple necessity, we have not seen any need of assigning a motive for it. We have assumed that, when we have shown the advantages of division of labor, we have given a sufficient motive for the unavoidable sequel of production on that plan,— exchange of products. We have concerned ourselves only with the question, What determines the quantity of other products each man can obtain in exchange for his own? This has been for us the problem of value, and in the solution of it we have rested on the principle of cost. Viewing each man's production of one thing as a means whereby to obtain the many things, and assuming the necessary freedom and intelligence on the part of pro-

* *Der natürliche Werth*, p. 24, note, and p. 37.

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ducers, we have argued that the action of intelligent self-interest must ordinarily keep the terms of exchange in rough accordance with the rule of equal cost for equal cost; that our brick-maker may ordinarily hope to get for his day's product in bricks a general assortment of other things that have cost, in the lump, about the same outlay of labor and waiting. That thesis seems to us to be in accordance with justice, to be a reasonable conclusion from undoubted premises, and finally to be substantially borne out by daily observation in practical life.

When we say that the rule of equal cost is the regulator of value, I hope it may be clear to Dr. von Wieser that we use value in this practical sense. And I am not without hope of convincing him that the classical theory of exchange value is still true and unshaken; also, that the theory of marginal utility, so far from being a substitute or a rival for the accepted theory, is merely a subordinate principle, quite in harmony with it, and, indeed, throwing needful light on one phase of its action. The Austrian economists, with all their keenness and ingenuity, have, as I think, entirely overrated and misjudged the bearing of the marginal utility principle. They have taken it for a rule of value, whereas it never can do more than determine the quantity of each commodity to be produced.

In my notice of Dr. von Boehm-Bawerk's work I ventured to suggest that this is the real function of marginal utility. "As I read Dr. von Boehm-Bawerk's exposition of the new doctrine, it seems to me that he is really not explaining why commodities exchange for each other in certain proportions, but is dealing with the question why, as between things having the same cost, men choose the one rather than the other, or choose to have much of one and little of the other; why, when its productive capacity increases, a community chooses to enjoy its increase of spending power in certain forms rather than in

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other forms; why, in a word, the proportional demand for commodities is what it is."

This suggestion seems to have escaped Dr. von Wieser's notice. The point needs fuller elucidation than it could receive in a short article where wages, not value, formed the chief subject of discussion. I wish here to develop it more fully, for I believe it will be found to contain the whole secret of the marginal utility doctrine.

In order to clear the ground, let me repeat the necessary truth that in this whole matter of exchange and value we have to keep production steadily in mind,— this, too, not as the Austrians seem to conceive of it, but as it actually takes place by division of labor. The Austrian writers commonly speak as if the possession of "means of production," in which they include labor, gave each man the power to produce any and every thing. Of course, they do not mean that; yet they do not sufficiently keep in mind the all-important fact that the individual producer is, in civilized industry, confined to the production of a single article. Even if he should change his occupation, he is still confined to a single product. The whole subject of exchange and exchange value is involved in this one fact. The individual worker produces of course to supply his own wants; but the precise thing he produces has to go to others, has therefore to suit the desires or the demand of others.

If it were possible for the individual to produce directly the very things he himself wishes, it is very clear that he would have continually to decide for himself the very important question, How much of this particular commodity shall I produce? In deciding the question in each case, he would have a somewhat complicated set of considerations to guide him. On the one side, he would have in mind the degree of satisfaction to be derived from this particular commodity as compared with others, the comparative utility of it. Here would come into play all

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the balancings and scales of utility with which our Austrian friends have made us so familiar. But, clearly, our producer would have another set of equally potent considerations in mind. His whole productive capacity being limited, he would wish to apportion it among the different commodities in such a manner as to afford him the maximum of satisfaction in return for his exertions. In doing this, he would have to balance, not merely utility against utility, but cost against cost. Nature fixes for him the terms on which he can obtain each commodity. Some of the most desirable commodities *in se* he might have to forego altogether, because of their high cost. Of other highly desirable commodities he might find himself unable to afford more than a little,—again on the ground of high cost. He might find it expedient, in view of all the circumstances, to devote himself mainly to the production of things having a low degree of utility, measure for measure, as compared with others, because in these the larger yield more than compensated for the difference in desirableness. In the case of each product, the point of marginal utility would be reached when he should say to himself: "I can do better than go on producing more of this article. In the time I should take to produce another measure of this I could produce such and such a quantity of that other, which would be more useful for me." The thing to be noticed particularly is the part necessarily played by cost in determining the point of marginal utility. I call special attention to it because the Austrians seem disposed to ignore it. The producer's decision of the question whether to produce this commodity or that, how much to produce of commodity A and how much of B, can never be based on considerations of the desirableness of the commodities in themselves, independently of the terms on which he can obtain the one or the other. This is so palpable a truth that I suppose no argument is needed in support of it.

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Now, under division of labor, each producer loses this direct control over the production that is to supply his own individual wants. He pools his productive exertions with the rest of the community. The direct product of his own labor goes for the most part to others; while he looks, for the satisfaction of his own wants, to the things other men have to give him in exchange. But I suppose nobody will contend that division of labor changes the individual producer's estimate of the different commodities. He will, no doubt, have indefinitely greater command over commodities than he could have had by producing directly for himself; but he will wish to select his articles, and the proportions of each, precisely as if he were able to produce them all directly for himself, in the same quantities as he can now obtain them by division of labor. The cost of each article will still be the controlling factor in settling the point of its marginal utility for him; but the cost to him is now a cost of acquisition. It depends on the terms of exchange between his own product and the products he desires. In other words, it depends on the exchange values of the several products. Here we begin to see a totally different relation between value and marginal utility from that presupposed by the Austrian economists; the fact, namely, that exchange value helps to determine the point of marginal utility instead of being determined by it.

When a producer offers his own product, on the basis of equal cost for equal cost, in exchange for certain quantities of the products of other men's labor, he takes the only course open to him for carrying out, in our complicated system, the choice of commodities he would make if he were able to produce the given quantities of these things directly for himself. His choice, both as to commodity and quantity, is governed by precisely the same considerations in the one case as it would be in the other. How far he is liable to be disappointed in his natural expecta-

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tions by failing to get exchange of products on these terms, and how far his original choice may be modified by finding the terms more or less favorable in one direction or another than the rule of equal costs would entitle him to expect, are undoubtedly questions of great practical moment for the individual producer. It may be freely conceded — in fact, the classical economists have always conceded — that the control of cost over value is only indirect, and is liable to be defeated in greater or less degree by the inevitable frictions of the industrial system, and especially by lack of intelligence and the spirit of self-help on the part of individual producers. So far as the law of cost is thus impeded in its action, the value of a commodity may be, even permanently, above or below its natural or theoretically just level. But, even in such a case, it is at best only a half-truth to say that the value is settled without reference to cost; for even here the cost of production has a very real control. There is a friction allowance, a clog on its action; but it acts nevertheless. Without its action, the value might be anything conceivable; for marginal utility can never set the value of anything, independently of the supply, and the supply is most certainly not itself fixed by marginal utility. The truth seems to be that in these cases, just as in the ordinary case, the function of marginal utility, as distinguished from simple utility, is rather to set a quantitative limit to the demand at a given value than to determine a particular value itself. For it is clear that, whatever the terms be that the market offers him, the individual exchanger will adjust his "demand" for the products of other men's labor, precisely as if he were producing the same things for himself at a cost of production equal to that of the amount of his own commodity he must give in exchange for them. The point of marginal utility for each commodity — the point at which he will say to himself, "I can do better, as values stand, by taking such and such other things than

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by taking any more of this one "— will be determined by precisely the same considerations in either case.

If this be true, the obvious conclusion is that marginal utility plays a very different rôle in the industrial system from that contended for by Dr. von Wieser. So far from controlling exchange value, it is itself controlled by exchange value. Its sphere of action is to determine the *comparative demand for the various commodities* in any given conditions of exchange. The conditions of exchange depend, for their normal adjustment, on the comparative cost of producing the various commodities. The familiar principle of competition, as necessary to the Austrian theory as to the classical, leads men to produce and offer in exchange those commodities that promise best returns for their labor and waiting. This tends, so far at least as concerns the great mass of products, to keep the terms of exchange in tolerable harmony with the principle of equal cost for equal cost. Every man who contributes anything to the general stock of good things has a very wide choice as to the precise good things he shall take for himself. His choice, and the aggregate choices of all others in the like case, indicate the relative quantity of each commodity the community as a whole wishes to obtain for its labors. But these choices do not fix the terms on which men can obtain the one commodity or another. That is a matter fixed by natural laws and the state of the mechanical arts,— in other words, by the cost of production of each commodity. No tables of comparative utility however elaborate, no calculus of satisfactions and subjective values however profound, can alter by a hair's breadth the terms on which the producer of each article may obtain it from nature. Neither, therefore, can such considerations affect greatly the terms on which, under a régime of industrial freedom, men shall ordinarily be induced to produce any given article for other men.

The Austrian economists write as if the adherents of

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the classical theory believed that cost "produces" value, or that things have value just because they have cost labor and waiting,—as if we announced that anything on which anybody has spent labor and waiting must for that reason have value. This is strange, seeing that every classical economist, from Ricardo down, has taught that utility is a necessary condition of value. If a thing have no utility for men, of course they will give nothing for it. Neither will they, except by mistake, produce such a thing. We may go farther, and say that, unless men want a thing sufficiently to submit to nature's terms of cost as a condition of having it, they will not produce it. Conversely, if men do want a thing sufficiently to be willing to endure the necessary cost for the sake of having it, they can have it, up to the limit of their productive power. These elementary propositions I suppose to be tacitly assumed, even if not expressed, in all our discussions. The only real question as to utility is not whether things must have utility in order to have value, but whether utility is or is not the regulator of exchange value.

Personally, I am unable to see anything in the principle of marginal utility that is not entirely in harmony with the old doctrine of cost as the regulator of value. It goes to supplement and enrich economic theory at the point of the relations between demand and production. It gives us, in the first place, a new and more fruitful conception of the limitation imposed on production from the side of demand,—the conception of a marginal utility for commodities in the mass, at the point at which all producers decide that rest is preferable to additional commodities of any sort. This is the point Mill had dimly in mind when, in arguing against the fallacy of general overproduction, he said that the laborers, if they had no further desire for commodities, "would take the benefit of any further increase of wages by diminishing their work." * Secondly,

* Book III. chap. xiv. § 3 of his *Principles*.

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it gives us a new and thoroughly philosophical view of the mental processes by which the individual, and consequently the whole community, determines the apportionment of his and its total demand among the various commodities. Nature and the arts of production fix for us the terms on which we can have each commodity. Our own sense of the comparative utility of each determines how much of it we care to have on those terms. Down to the point of its marginal utility, we take it in preference to other things. At the point of its marginal utility, we turn to other things, or rest from our labors, in preference to getting more of it at the necessary cost.

All this is as simple as it is true, and I think it expresses the whole function of marginal utility. It is only the complicated character of our industrial arrangements that makes the principle appear to have a wider or a different function. Because the exchange value corresponds to the marginal utility of things, it is easy, in the complicated case, to mistake the actual relation of the two, and to conclude that the marginal utility fixes the value. But a full consideration of the matter must disclose the more rational explanation of the coincidence. That we are willing to have a certain quantity of a thing at a given value can never be the reason why the value should stand at that level. So far as final utility is concerned, each commodity might have any one of a thousand values,— anything between zero and a value so high as to exceed its total utility to anybody. At any given value between these extremes a corresponding point of final utility would readily develop itself. Men would take a certain quantity of it at that value, in preference to other things. The difficulty, the only difficulty, would arise in adjusting the supply to the demand, on those terms. For the supply there is, of course, no source but production; and there no question of utility can alter the terms on which, in the last resort, the commodity is really obtainable. That

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among all the possible values there is one that corresponds to the cost of production, and that there is a final utility point for the article corresponding to that value, do not in the least indicate that the value is determined by the marginal utility. They show only that, at that cost, men want a certain quantity of the article; that they regard it, up to that point, as the most desirable thing to have in return for their labor and waiting; and that beyond that quantity they do not so regard it, but take other things in preference.

If any doubt remain in the mind of any reader, let him consider what usually takes place when a new discovery or invention gives us a commodity at a reduced cost. The production of the article is increased, and the value declines. With the decline of the value comes a shifting of the point of marginal utility: people want more of the commodity than before. At the reduced value they are ready to use it in ways and for purposes that, at the higher cost, were not considered admissible. And so a new marginal utility is established at a lower level than the old. But is it reasonable to contend that the change in the marginal utility is the thing that determines the lower value of the commodity? Is it not clear, on the contrary, that it is the lessening of the cost of production that has caused the decline of the value, and that it is the decline of the value, or cost of acquisition for the purchaser, that has evoked the lower marginal utility? In a word, marginal utility may tell us how much of a commodity men will take at any given cost and value. But for the determination of any particular value it can never of itself be sufficient, because it adjusts itself as readily to one value as to another.

The result seems to be that we must reject, so far at least as regards their main contention, the imposing web which the Austrian economists have woven with such wonderful ingenuity about the subjects of value and cost.

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And, if I were asked to indicate the precise point at which their initial misstep is taken, I should say it is probably to be found in their original assumptions as to the cost and value of the marginal product or portion of product. They build a great structure of reasoning on foundations which needed more careful scrutiny than they seem to have given them. The marginal product, on which everything turns, represents, as they tell us, the "last" or lowest use to which the requisite means of production can be *economically* applied, the last or lowest use that is "economically *permissible*." If they will examine carefully the content of this phrase of theirs, they will find, I think, that it involves a principle entirely at variance with their main contention. It seems to me to adopt, in a concealed form, the essential principle of the classical theory, and to rest on the working of that principle while denying its operation. Why, for example, is the use of iron for the satisfaction of a demand that puts a value of six shillings a hundred weight on it, economically permissible? Why is it not economically permissible to use it for satisfying a demand that values it at two shillings? It is not enough, for the needs of the Austrian principle, to answer that, at six shillings the hundred weight, employers may economically (*i.e.*, with ordinary profit) hire laborers to produce iron: whereas at two shillings they cannot do so. That is simply the classical theory, pure and simple. By falling back on that method of establishing a normal price for iron, the whole case is given up. That there is a "last" buyer who is just willing to give six shillings for the last hundred weight of iron "economically" produced, does not save the marginal utility doctrine in the least. The thing to be proved is that the willingness of this last buyer to give six shillings for the last hundred weight, *makes* it economically permissible to produce iron at that price. The Austrian economists seem to me to assume at the outset the very thing to be proved. And when, on

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this concealed assumption, they rear their extremely coherent and highly complicated theory of value, their whole structure is in the unhappy condition of being without solid foundations.

I cannot close this paper without saying that I should count myself very unfortunate if anything that I have written should give the impression of general hostility to the Austrian economists. While finding myself compelled to reject their main doctrine, I gladly avow myself, in manifold other respects, their grateful pupil. No one, I think, can study their writings without gaining much new light on economic theory. If, in speaking of the matters in which they seem to me to be in error, I have thought no reserves or palliative phrases necessary, the reason is that, in happy contrast with some other economists, the Austrian writers have shown themselves ready to receive honest criticism in the true spirit of science.

S. M. MACVANE.

HARVARD UNIVERSITY, March, 1893.

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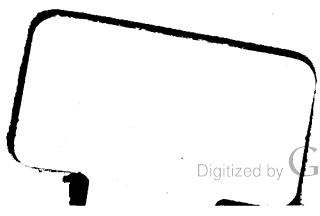
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